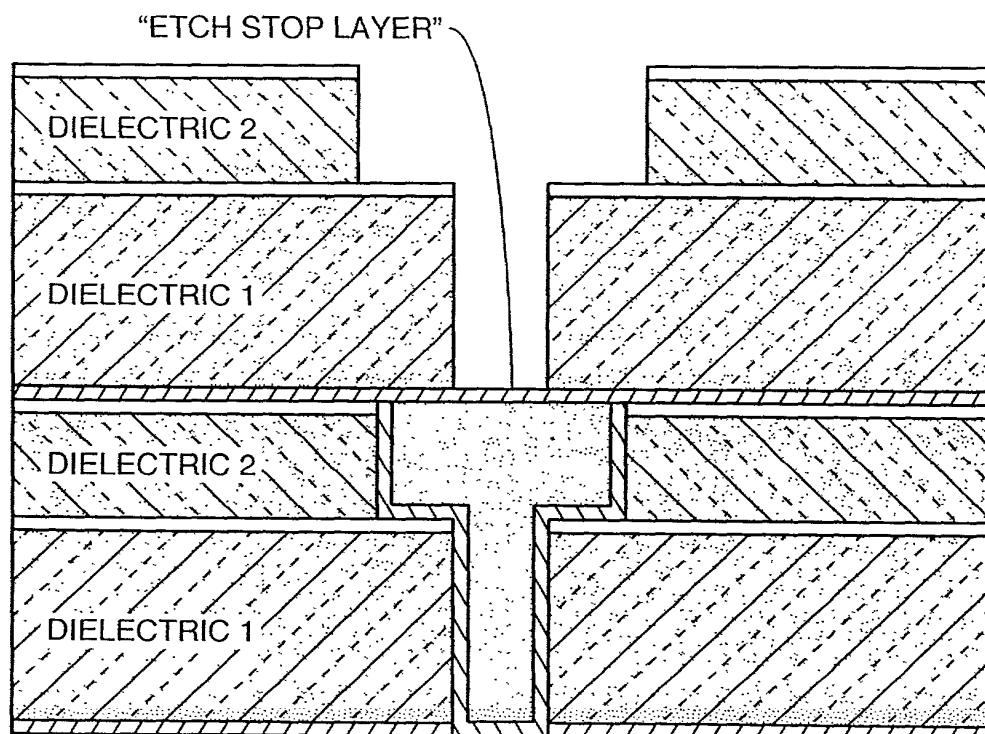


**FIG. 1**



**FIG. 2**

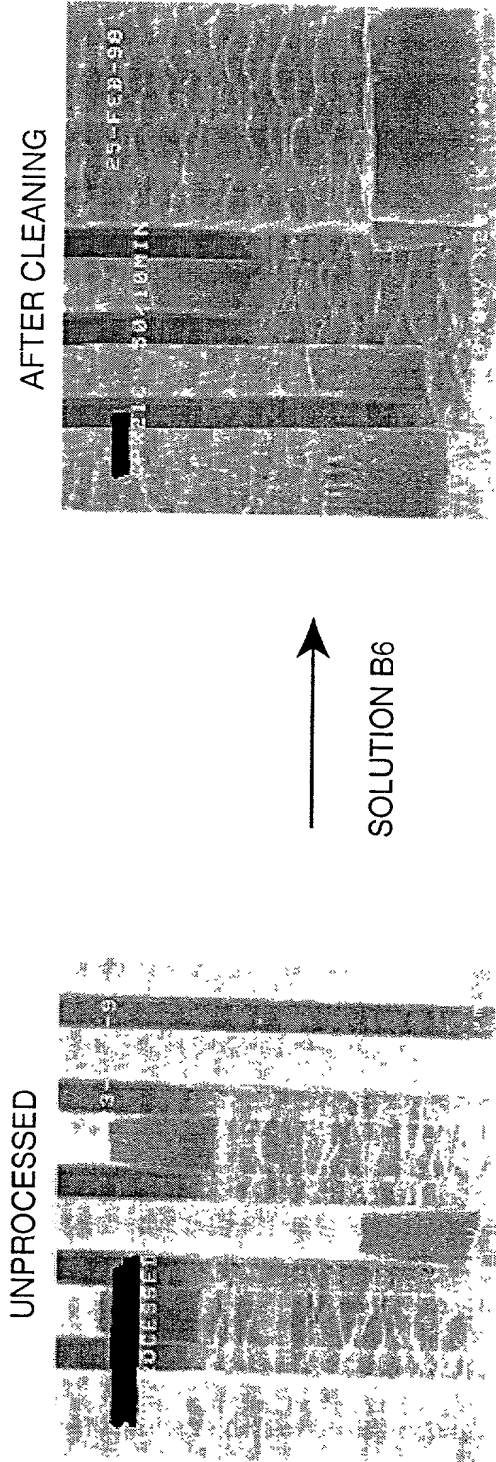


FIG.\_3A

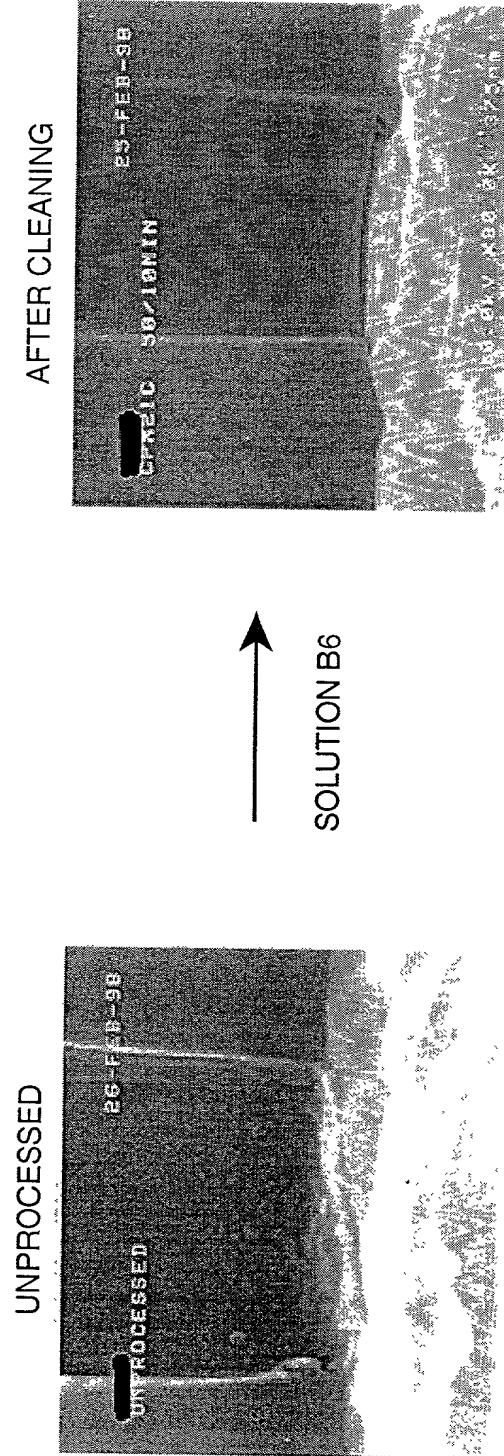
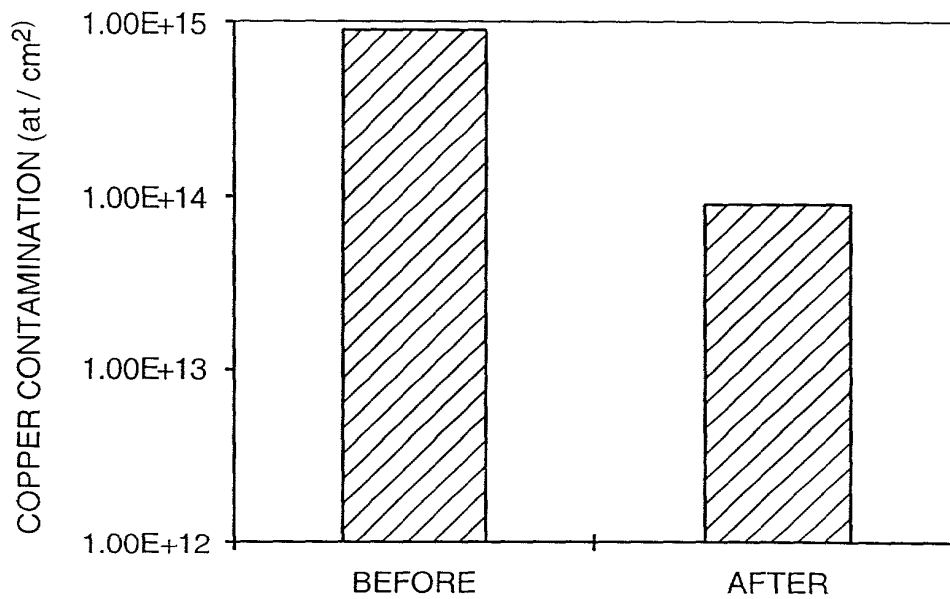
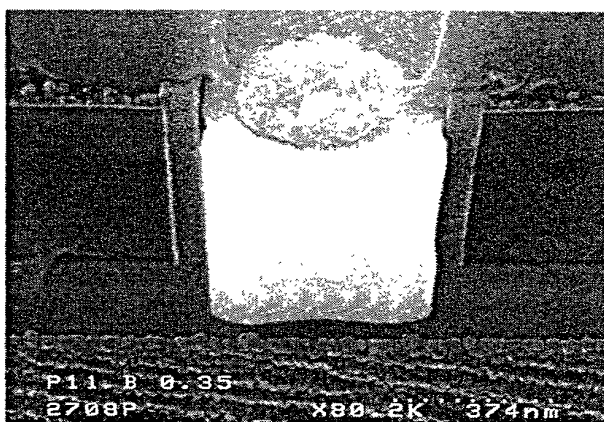


FIG.\_3B

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**FIG.\_4**

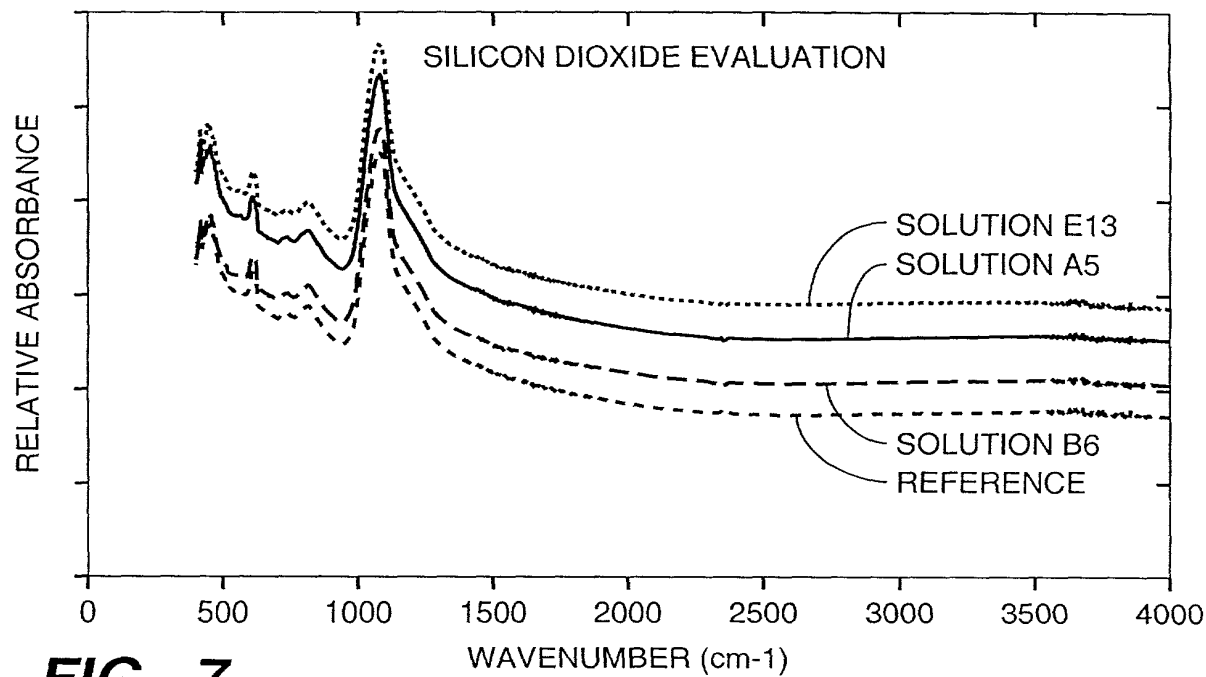
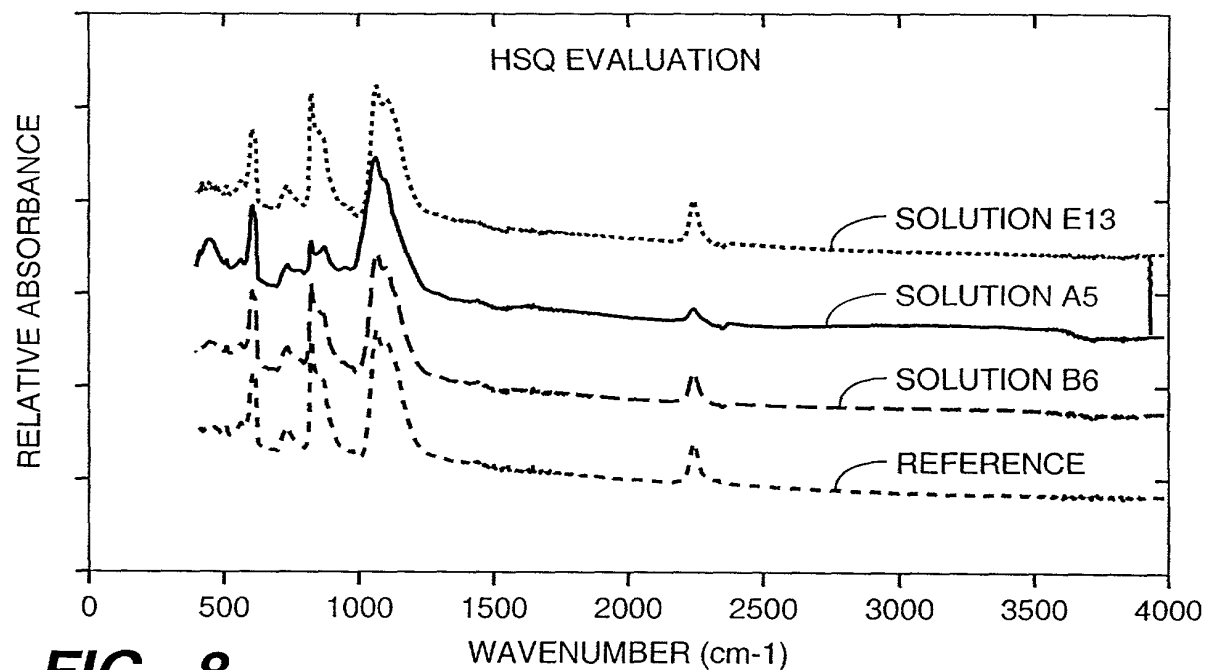


**FIG.\_5**



**FIG.\_6**

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**FIG. 7****FIG. 8**

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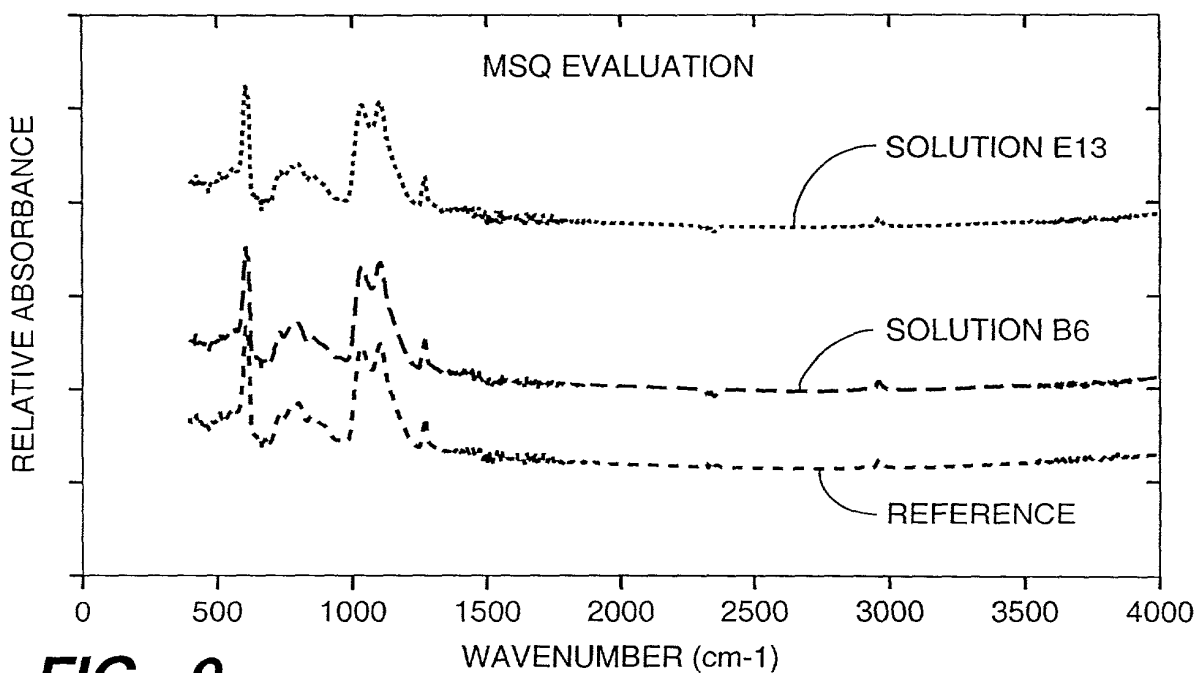


FIG.\_9

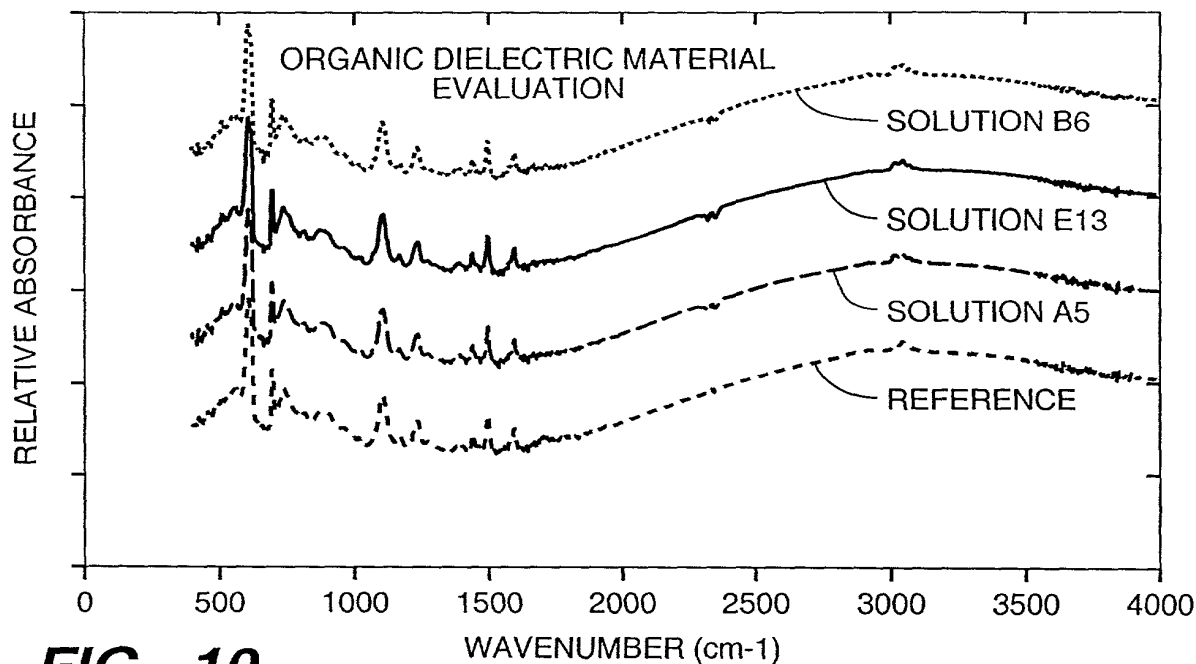
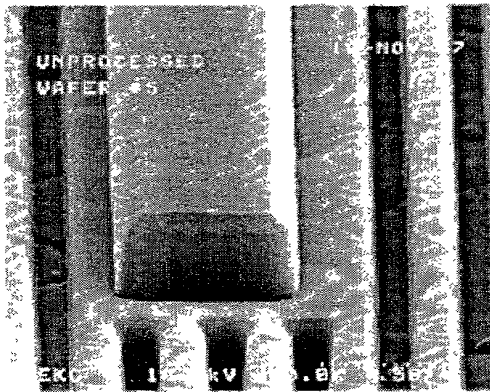
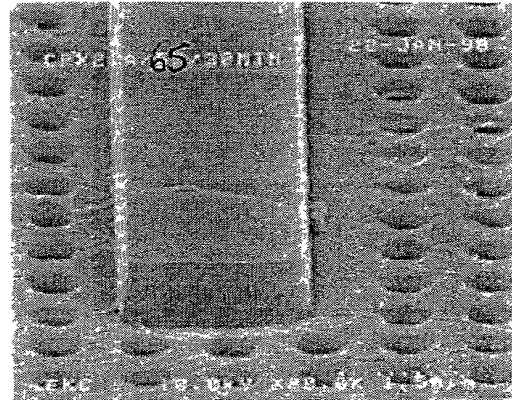


FIG.\_10

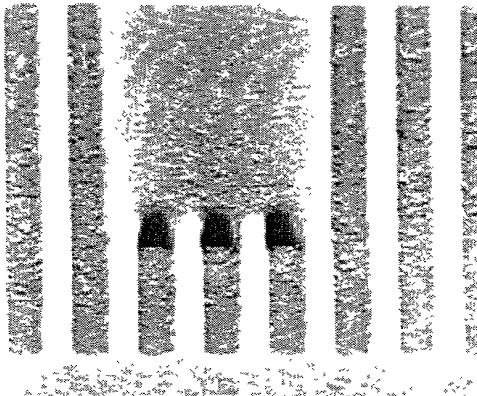
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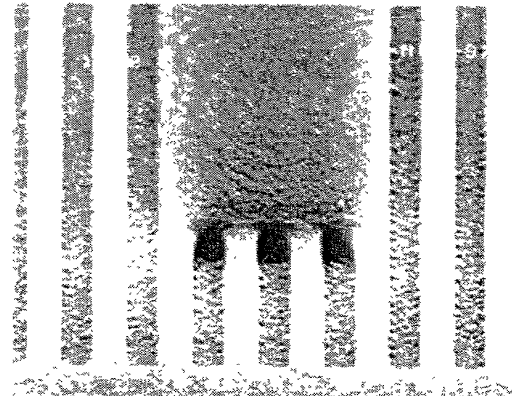
**FIG.\_11**



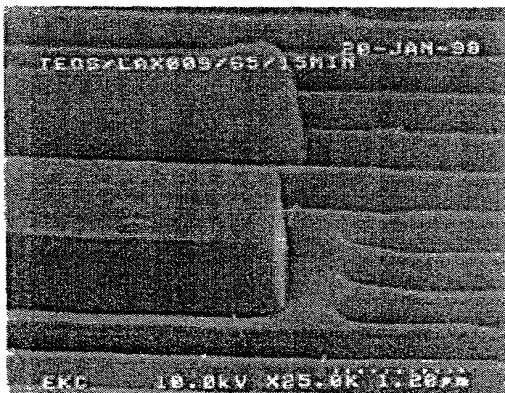
**FIG.\_12**



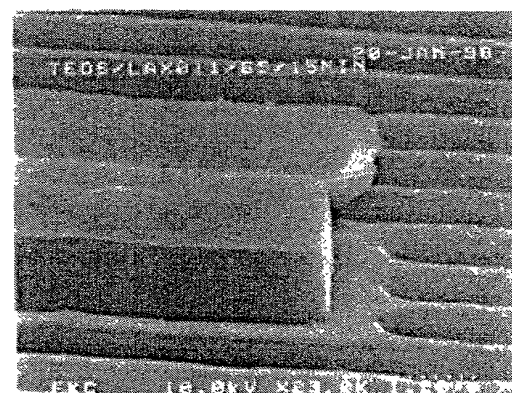
**FIG.\_13**



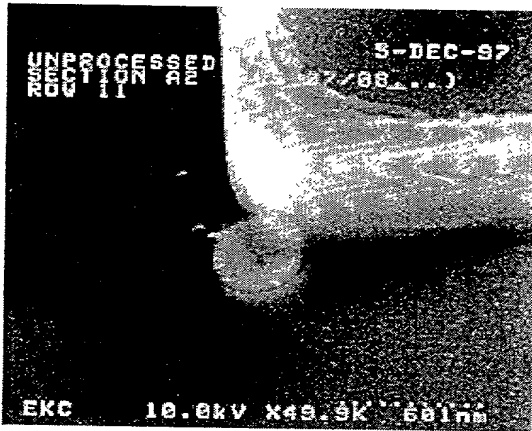
**FIG.\_14**



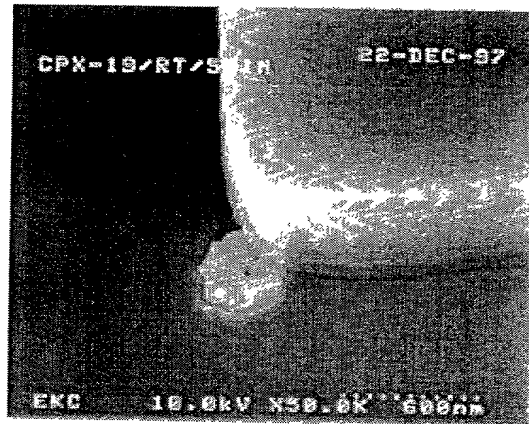
**FIG.\_15**



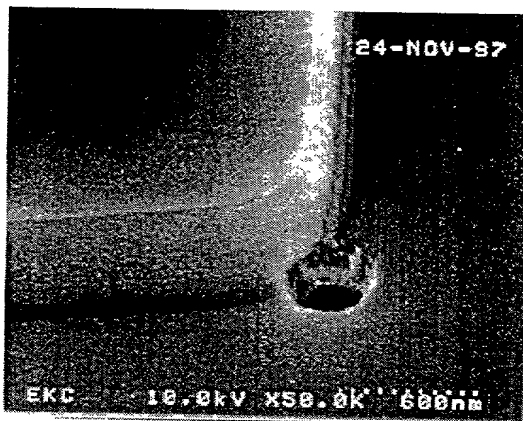
**FIG.\_16**



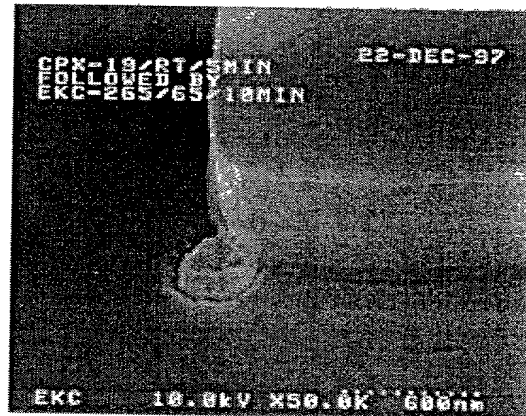
**FIG.\_17**



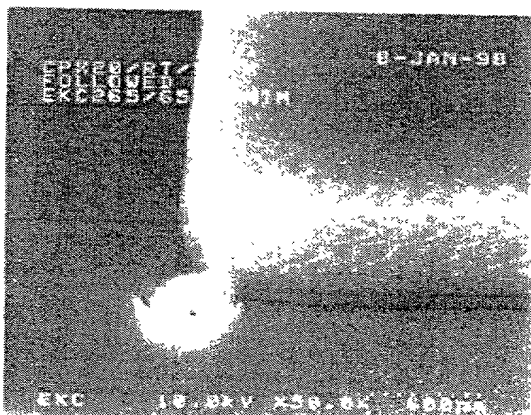
**FIG. 18**



**FIG. 19**



**FIG. 20**

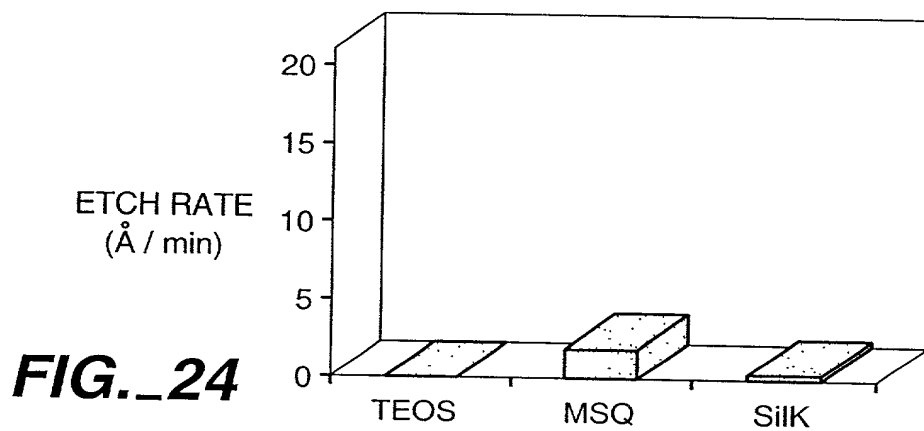
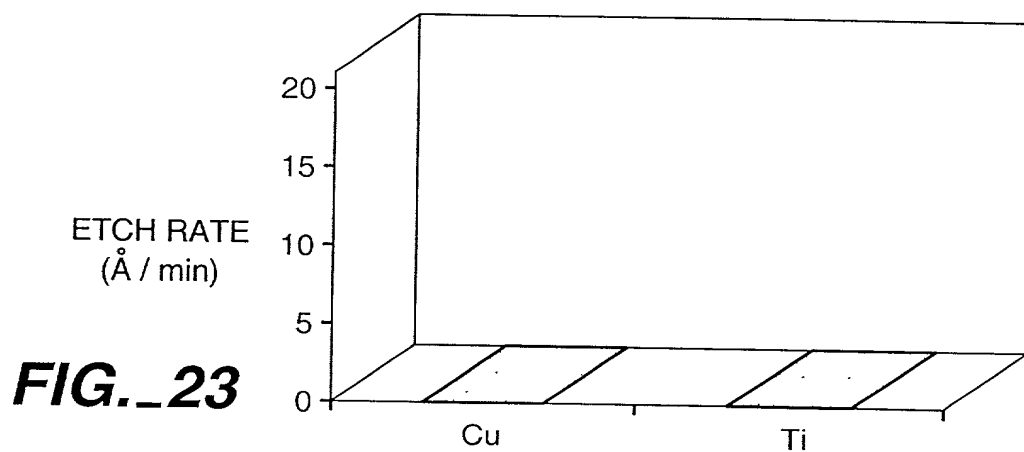


**FIG.\_21**



**FIG. 22**

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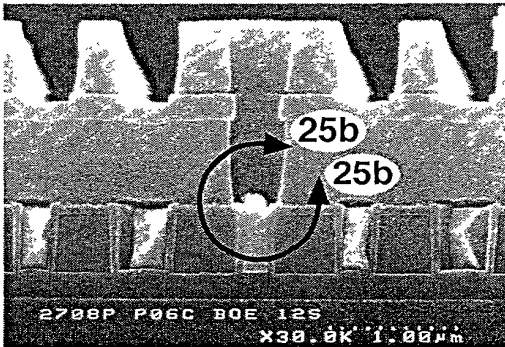


FIG.\_25a

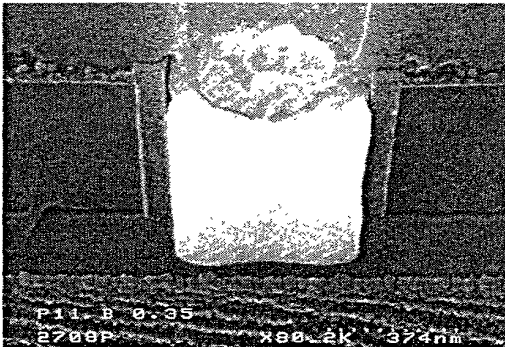


FIG.\_25b

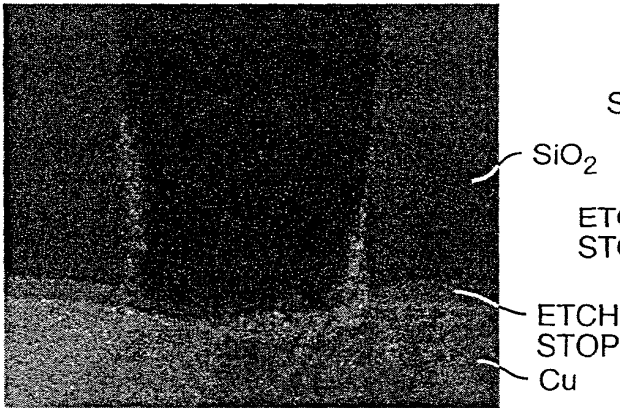


FIG.\_26

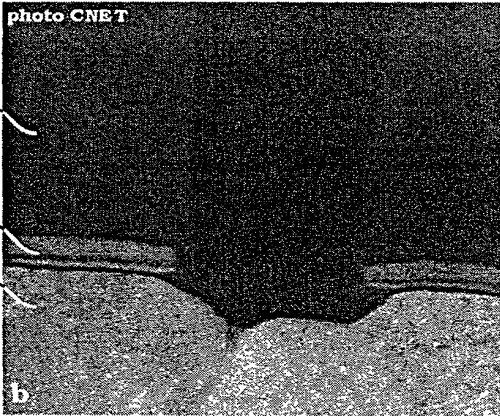


FIG.\_27

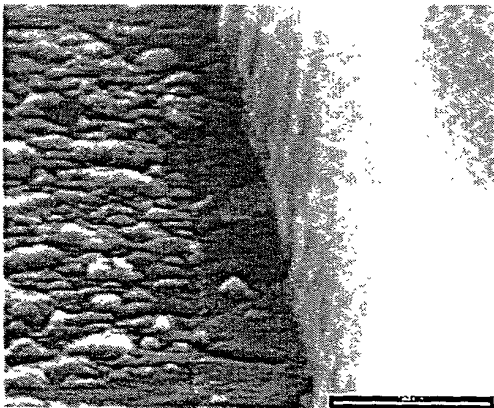


FIG.\_28

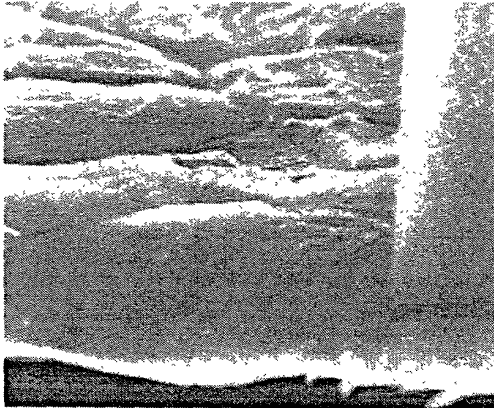
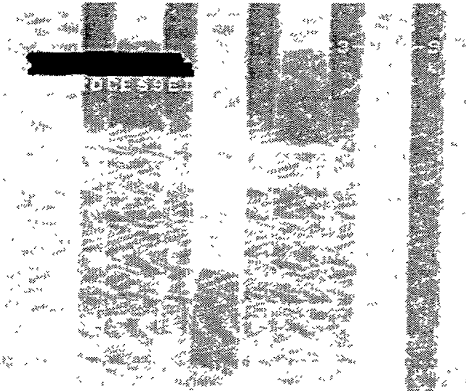
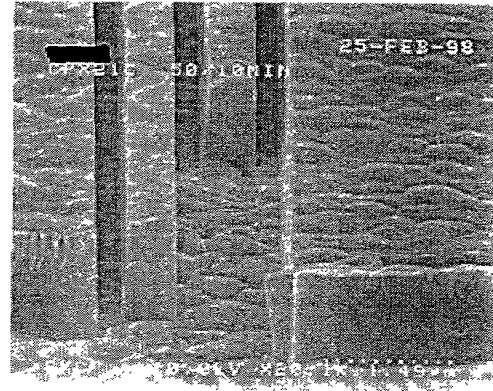


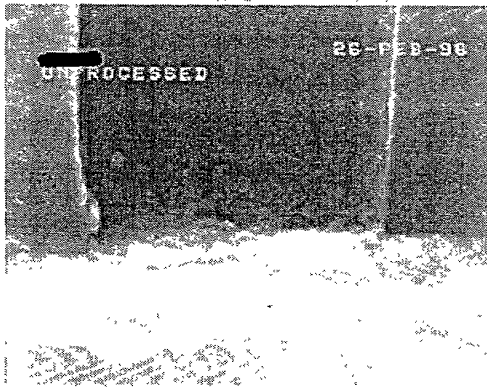
FIG.\_29



**FIG.\_30**



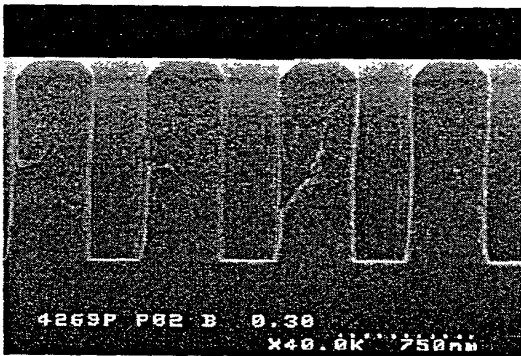
**FIG.\_31**



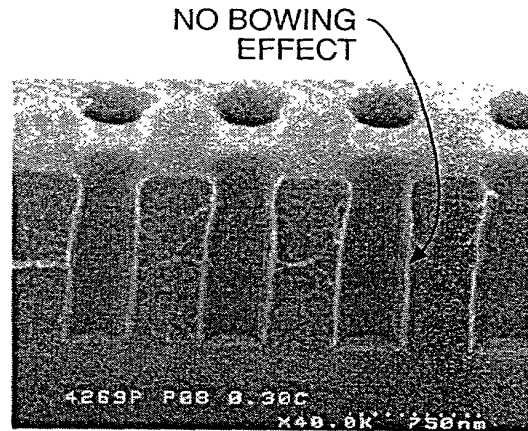
**FIG.\_32**



**FIG.\_33**



**FIG.\_36**



NO BOWING  
EFFECT

**FIG.\_37**

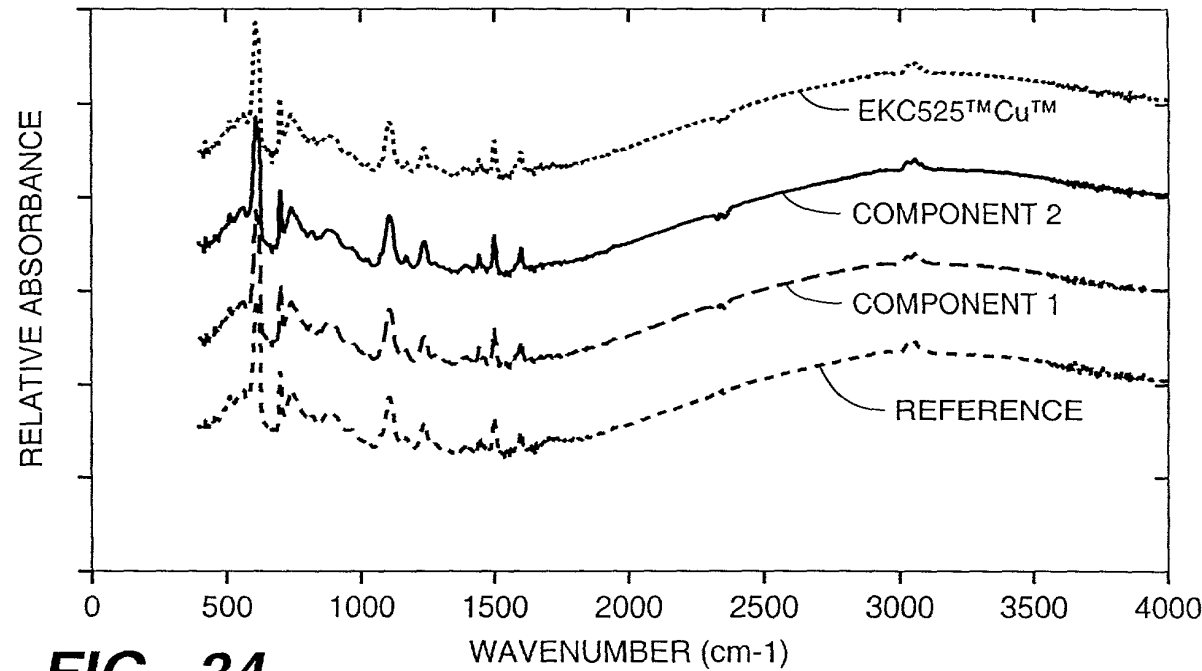


FIG.\_34

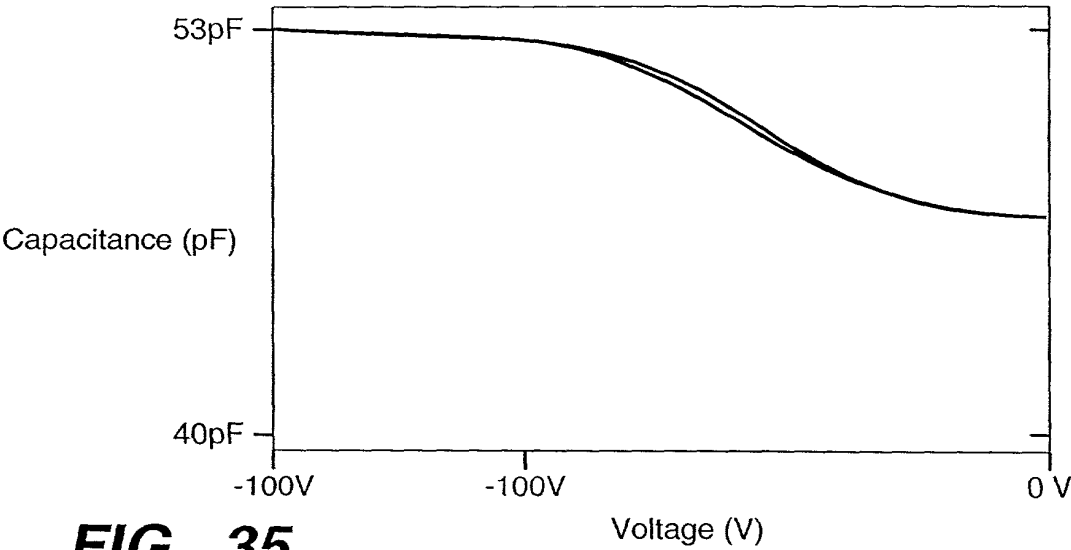
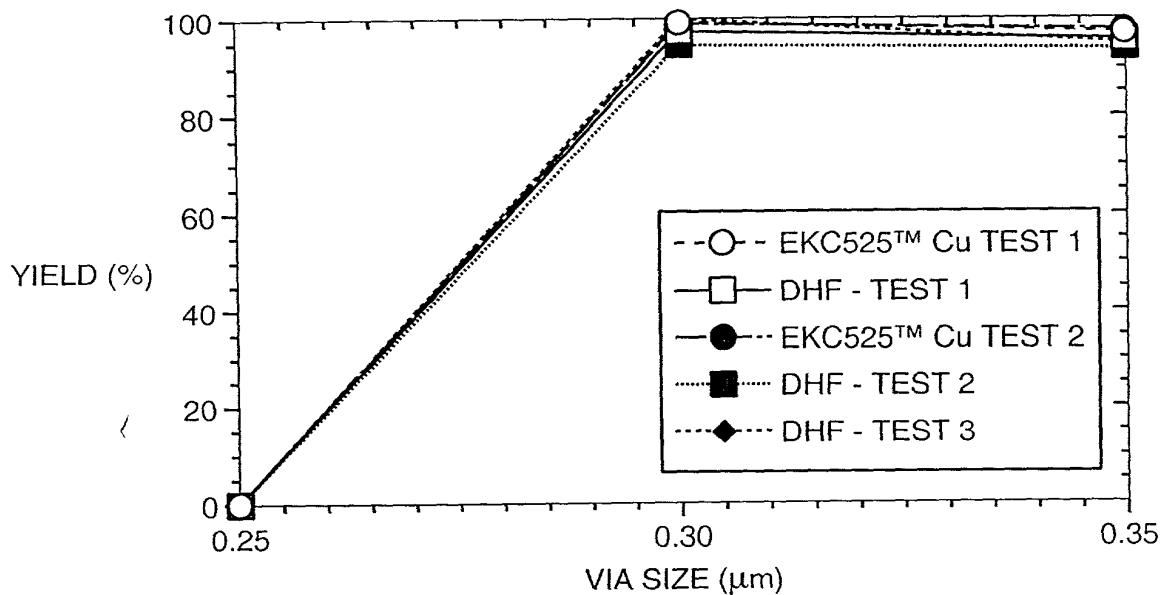
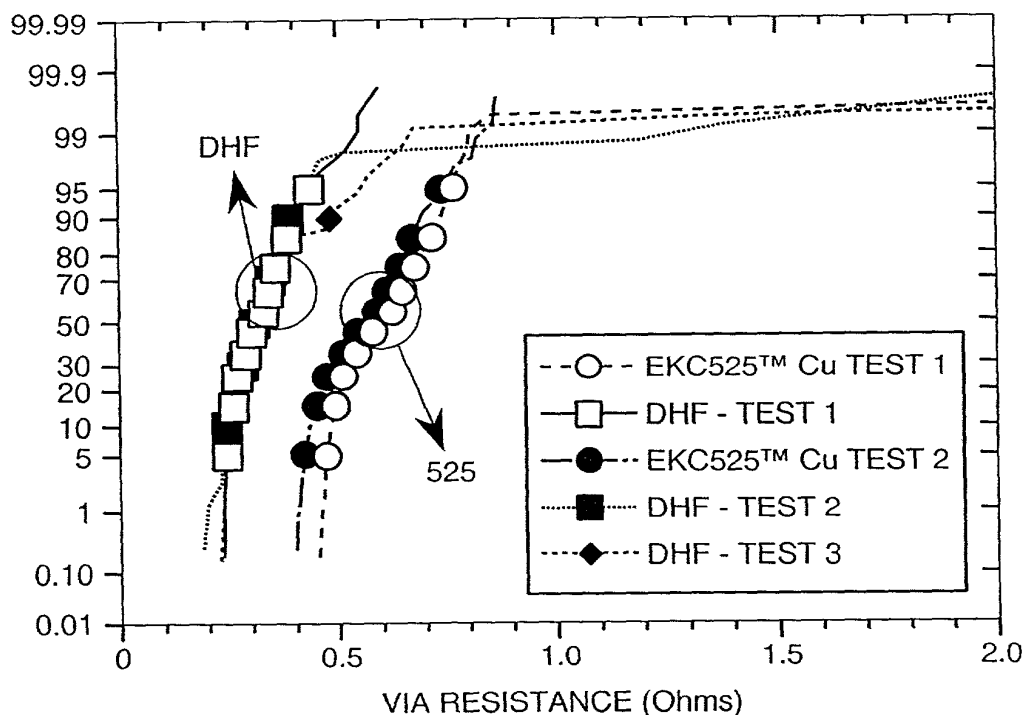


FIG.\_35

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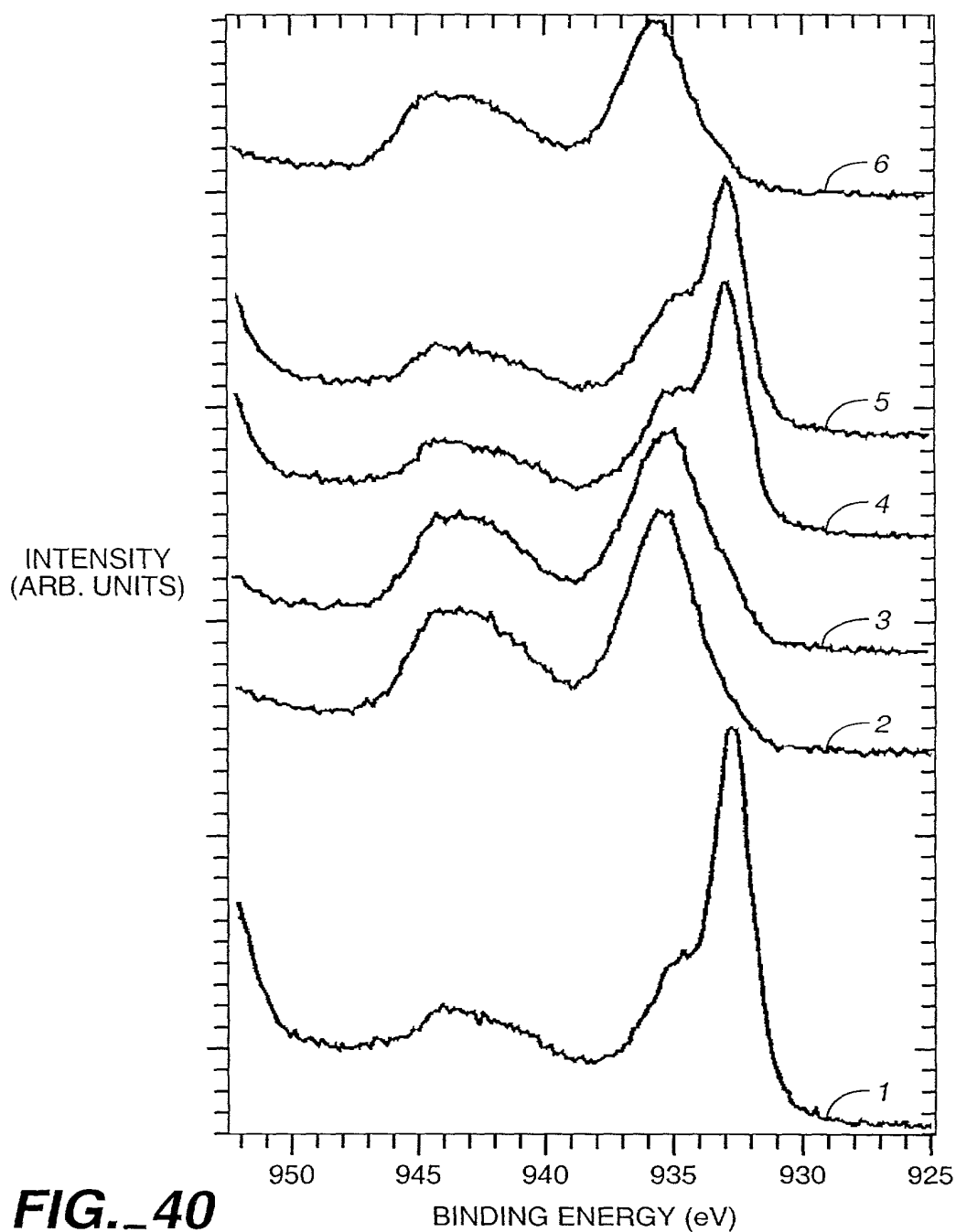
**FIG. 38**

YIELD RESULTS ON COPPER TEOS  
STRUCTURE VERSUS VIA SIZE  
COMPARING DHF AND CLEANING SOLUTION

**FIG. 39**

VIA RESISTANCE HISTOGRAM FOR 0.3 μm VIAS  
COMPARING DHF AND CLEANING SOLUTION

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XPS ANALYSIS OF THE SURFACE COMPOSITION  
OF A COPPER BLANKET BEFORE (1), AFTER  
ETCHING (2 AND 3) AND AFTER CLEANING IN  
THE SOLUTION (4 AND 5) AND IN SOLUTION B8 (6).